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ABSTRACT

Access to college for ethnic minorities and the poor remains very limited. Four times as many high school graduates from high-income families enter the University of California than do graduates of low-income families. The entrance rate to the State University and Colleges for high-income graduates is twice the rate for low-income graduates. An examination of the educational and work choices of 1,600 random graduates of 20 Los Angeles high schools revealed that only 4 percent and 9 percent of all black graduates enter UC and CSUC, respectively. The inequality of college opportunities largely results from the disproportionate numbers of low income graduates who are ineligible to enter the University of California or the State University and Colleges. Findings also indicate that UC entrance requirements that focus on high school performance in math and science courses discriminate against women graduates, Los Angeles high schools are greatly segregated, and entrance rates to private colleges and community colleges are surprisingly equal. Several steps to overcome inequities are: (1) expansion of student financial aid programs to further alleviate financial barriers to college; (2) expansion and improvement of outreach programs; and (3) greater flexibility in UC and CSUC admission requirements. (Author/KE)

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UNEQUAL ACCESS TO COLLEGE

POSTSECONDARY OPPORTUNITIES AND CHOICES OF HIGH SCHOOL GRADUATES

Staff Report

Assembly Permanent Subcommittee
on Postsecondary Education

California Legislature

November, 1975

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ASSEMBLY PERMANENT SUBCOMMITTEE ON POSTSECONDARY EDUCATION

JOHN VASCONCELLOS, CHAIRMAN

November, 1975

To: Members, Assembly Permanent Subcommittee on
Postsecondary Education

Attached is a staff report on the availability of college opportunities for California high school graduates. The study examines the relationships between access to college with family income, ethnicity, and academic achievement.

The inequities revealed in this report are disturbing.

Reace,

John Vasconcellos

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attachment

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BACKGROUND AND SUMMARY

Most Californians believe the college degree continues to provide upward social and economic mobility and that the college experience results in personal growth and cognitive development. Changing times, evolving critiques of higher education, and the increasing underemployment of college graduates challenge the perceived value of college. Nevertheless, for many, and particularly for minorities and the poor, college attendance yields real personal and societal benefits.*

Yet college is not an option for many high school graduates. Despite significant progress, measured in terms of inputs (e.g., available student aid dollars) or outcomes (e.g., representation of ethnic minorities on college campuses), access to college remains unequal. Nationally, if your family's annual income is \$15,000 you are four times more likely to attend college than if your family's income is \$3,000. If you are very poor and black, your chances of entering college are one-seventh that of students from high income white families.² Underrepresentation of ethnic minorities continues, particularly at four-year colleges and universities. The proportions of blacks and Spanish surname among freshmen at the University of California equals one-half and one-third their respective representation in the high school senior class of the previous year.³

In adopting Assembly Concurrent Resolution 151 (1974) the Legislature acknowledged that additional effort by colleges and universities is necessary to overcome underrepresentation of ethnic minorities and the poor.** Yet as institutions reassess their ability to equalize postsecondary opportunities and state agencies evaluate current institutional efforts, we realize how little is

* Increasing demand of employers for ethnic minorities, in part due to affirmative action pressures, is resulting in increased benefits for persons in this group with the least access to college, e.g., annual income of black male graduates reached parity with white male graduates in 1973 (increasing 104 percent for blacks and 67 percent for whites since 1964).¹

** ACR 151 requires the three public segments of higher education -- the community colleges, the State University and Colleges, and the University of California -- to develop plans for alleviating the current underrepresentation of minority students and students from low income families by 1980. A report on these institutional plans is due by January, 1976 from the California Postsecondary Education Commission.

known about what factors affect a high school graduate's choices about work and school.⁴ In response to this problem, the Assembly Permanent Subcommittee on Postsecondary Education commissioned this study.

The study is an initial look at what choices high school graduates make and how these decisions correlate with family income, ethnic background, and academic achievement. The examination is based on data collected on the personal characteristics and post-high school activities of 1,600 graduates of 20 Los Angeles high schools.

This study was not designed to yield conclusive answers regarding equality of opportunities for high school graduates. The study's objectives were to yield initial evidence and to suggest a research design for more comprehensive inquiries.

A third purpose of the study was the development of knowledge about the characteristics of graduates eligible to enter the University of California and the State University and Colleges. Critics of educational opportunity programs and other student outreach efforts claim that admission of low income and minority students requires a "lowering of academic standards." Others argue that special admissions must be expanded to provide access to students who perform below normal entrance requirements in terms of traditional performance measures. Still others claim that large numbers of low income and minority high school graduates, eligible to enter a UC or CSUC campus, are not choosing to enroll. This study was designed to also test these arguments.

Analysis of the data reveals these findings:

- Substantial inequality of post-high school opportunities exists between graduates of high schools serving low income areas and graduates of high schools serving high income areas. The rates of eligibility to enter the University of California and the State University and Colleges are three times greater for graduates of high income schools than for graduates of low income schools (Tables 9 and 12). UC and CSUC eligibility rates for Spanish surname and black graduates are one-third the eligibility rates for whites (Tables 10 and 13). (This finding is compounded by dropout rates in sampled low income high schools averaging 39 percent, compared to 13 percent in high income schools -- Table 7.)
- Actual post-high school choices of graduates reveal similar inequalities. Graduates of high schools in high income areas are four times as likely to enter the University of California and twice as likely to attend the State University and Colleges as are low income graduates (Table 15). Rates of entrance to community colleges and independent colleges and universities are very similar, regardless of differences in family incomes. Only two and four percent of all

Spanish surname and black graduates, respectively, entered UC, compared to an entrance rate of 14 percent for white graduates (Table 16).

- Specific inequities emerge after combining information about opportunities and choices: Significantly greater numbers of UC and CSUC-eligible low income graduates are not entering college, than eligible high income graduates. And many high achieving low income graduates are ineligible to attend UC and/or CSUC due only to minor course or scholarship deficiencies. The substantial number of UC and/or CSUC eligible, low income graduates entering community colleges provides a potentially larger number of students eligible to later transfer to UC and/or CSUC (Tables 17 thru 20).
- Given unmet financial need remains substantial, increasing only student aid appropriations will not significantly increase the numbers of low income and minority college students. Governmental and institutional strategies for overcoming access inequalities must also focus on:
 - improving instructional programs in low income high schools to increase achievement levels;
 - improving information available to high school students about postsecondary opportunities and student aid;
 - increasing flexibility of admission requirements;
 - expansion of student support services (e.g., tutoring and counseling) for low income and minority students who enter college.

DATA COLLECTION

The data collection was accomplished in conjunction with research conducted by the Los Angeles City Unified School District. In June, 1973 an in-class survey was administered throughout the district to high school seniors graduating that month. In May, 1974 one-third of the 1973 graduating class was randomly selected and sent a questionnaire asking in what school they were presently enrolled or in what occupational activity engaged. Follow-up telephone calls were made to graduates of high schools located in low income areas to ensure comparable response rates by high school. Forty percent (4,228) of those surveyed returned the questionnaire.

The sample (utilized in this study) consisted of the 1,592 respondents to the survey who graduated from the five high schools in the highest income areas of the district, the eight high schools in the poorest areas, and the seven high schools serving areas which most nearly equal the median family income level of the district.⁵ Income levels were assigned to each high school according to the mean income level of families residing in the schools' attendance area (based upon census tract information). This procedure was necessary since income figures were unavailable for individual graduates. Table 1 indicates the mean income levels for the attendance areas of the high schools selected for the sample.

Table 1

Mean Family Income Levels for Attendance Areas of Sampled High Schools

income group	number of sampled high schools	mean family income of school attendance areas
High Income Schools	5	\$ 21,816
Middle Income Schools	7	\$ 11,918
Low Income Schools	8	\$ 7,199
Total	20	\$ 12,505

Notes: The mean family income by attendance area for all 49 high schools of the Los Angeles City Unified School District equals \$12,439.

Coded high school transcripts were obtained for each of the sampled graduates. The transcripts were evaluated by the State University and Colleges and the University of California to determine each graduate's eligibility for admission to a CSUC or UC campus.

Eligibility data were matched with data initially collected in June, 1973 and information obtained from the follow-up survey in May, 1974. The following data elements were collected for each graduate:

- ethnic/racial classification;
- sex identification;
- mean family income for the attendance area of the student's school;
- activity in which the individual is engaged one year after graduation;
- eligibility to attend the University of California;
- eligibility to attend the State University and Colleges.

Constructing the sample from high, middle, and low income high schools increases the likelihood that the sample is representative of the district's entire population with regard to family income levels. However, since family income data were not collected on individual students this could not be precisely verified. The selected sample is significantly overrepresentative of ethnic minorities, particularly Asian Americans, when compared with the district's entire 1973 graduating class. (Table 2 compares the selected sample with the entire graduating class and the 1973 12th grade class statewide.) Comparisons conducted by the Los Angeles district of the selected sample of 1,592 graduates to the 4,228 graduates who returned the follow-up questionnaire resulted in nearly identical findings.⁶ The only discrepancy was the overrepresentation of minority graduates in the selected sample. (A statewide high school senior survey recently begun by the Post-secondary Education Commission will eventually provide a larger data base.)

Table 2

Comparative Ethnic Breakdown of Sampled
Population, Entire 1973 Los Angeles Graduating
Class, and 1973-74 Twelfth-grade Class Statewide

population	N*	black	Spanish surname	American Indian	Asian American	white	others	
selected sample	1,511	23%	18%	0.5%	9%	48%	2%	100%
all Los Angeles graduates - June, 1973	24,385	18	16	1	5	58	2	100%
twelfth grade class statewide-- Fall, 1973	281,721	8	13	0.4	3	76**		100%

* These figures indicate the number of individuals for which ethnic data were collected (and excluding "decline to state" responses), not actual populations.

** The Department of Education combines whites with "all others" in reporting ethnic data.

FINDINGS

Various analyses of the data were performed to determine what choices about post-high school activities are made by high school graduates of various ethnic, economic, and educational backgrounds. Results of additional research by the Los Angeles City Unified School District have been integrated into this report.

Characteristics of Sampled Graduates

Table 3 indicates the ethnic breakdown of the sample for high, middle, and low income high schools. Most graduates of high schools serving high income areas are white, while only one percent of graduates from low income schools are white. Black and Spanish surname graduates combined equal 92 percent of graduates from low income schools but only three percent of all graduates of high income schools. Significant numbers of Asian American graduates were present, particularly from middle income high schools.

Table 3

Ethnic Breakdown of Graduates
by High, Middle, and Low Income Schools

income group	N*	black	Spanish surname	American Indian	Asian American	white	others	decline to state	
High Income Schools	468 (508)	1%	2%	0.2%	1%	94%	0.2%	(8%)	100%
Middle Income Schools	569 (600)	15	13	0.9	17	50	5	(5)	100%
Low Income Schools	474 (484)	54	38	0.2	5	1	0.6	(2)	100%
Total	1,511 (1,592)	23	18	0.5	9	48	2	(5)	100%

* Figures in parentheses indicate the total N including "decline to state" responses. Percentages appearing in the column identified as "decline to state" indicate the proportion of graduates so responding. All other percentages relate to the N figures not in parentheses and are calculated excluding "decline to state" responses.

The academic achievement of sampled graduates was examined in terms of overall grade point average, reading and mathematics test scores, and eligibility to enter the State University and Colleges or the University of California as determined by the respective institutions.

Overall grade point averages of graduates by income level and by sex are reported in Table 4. Tables 5 and 6 indicate the distributions of reading and mathematics performance among the graduates by high school income level and by sex.

Table 4

Overall Grade Point Averages (GPA)
of Graduates by High, Middle, and
Low Income Schools and by Sex

	N	median	grade point average			
			below 1.80	1.80 to 2.49	2.50 to 3.19	3.20 and above
High Income Schools	300	3.11	5%	23%	39%	32% 100%
Middle Income Schools	300	2.79	6	31	33	31 100%
Low Income Schools	300	2.44	11	44	31	15 100%
Total	900	2.71	7	32	34	26 100%
Male	447	2.62	8	35	32	24 100%
Female	453	2.78	6	30	36	28 100%

Table 5

Reading Scores of Graduates by High,
Middle, and Low Income Schools and by Sex

	N	median	percentile				
			1-4	5-23	24-60	61-89	90-99
High Income Schools	297	65.9	2%	8%	33%	34%	23% 100%
Middle Income Schools	300	51.5	3	18	39	27	13 100%
Low Income Schools	295	15.3	14	44	34	7	1 100%
Total	892	44.9	6	24	35	22	12 100%
Male	441	50.1	6	20	34	26	14 100%
Female	451	40.3	7	27	37	18	11 100%

Table 6

Mathematics Scores of Graduates by High,
Middle, and Low Income Schools and by Sex

	N	median	percentile				
			1-4	5-23	24-60	61-85	90-99
High Income Schools	296	71.2	0%	10%	28%	37%	24% 100%
Middle Income Schools	297	52.1	3	22	34	25	17 100%
Low Income Schools	293	20.0	12	46	34	6	2 100%
Total	886	43.7	5	26	32	23	15 100%
Male	438	54.5	4	20	30	25	21 100%
Female	448	36.6	5	32	34	20	8 100%

Dropout rates of the selected high schools are reported in Table 7. The average dropout rate for low income schools is 39 percent, compared to 13 percent for high income schools. The average family income for the school with the highest dropout rate equals \$5,600. The school with the lowest attrition rate serves families with average incomes of \$22,000.

Table 7

Average Dropout Rates of Sampled High Schools
by High, Middle, and Low Income Schools

	N	Average Dropout* Rate	Range of Dropout Rates
High Income Schools	5	13%	4% to 18%
Middle Income Schools	7	23	17 to 30
Low Income Schools	8	39	29 to 48
All Schools	20	27 **	4 to 48

* Drop-out rates indicate the percent of individuals who entered a specific high school as freshmen and who did not attend the high school three and one-half years later, excluding students whose families migrated from the school's service/attendance area.

** The estimated districtwide dropout rate was 24 percent in 1973.

Expectations of students prior to graduation regarding postsecondary schooling are reported in Table 8. A substantially higher percent of seniors from high income schools expect to enter four and two-year colleges. The expectations of Los Angeles seniors are similar to actual choices, with one exception: a substantial number of low income seniors, expecting to enter a community college, were not actually enrolled one year later. The percentages of middle and low income seniors expecting to receive financial aid are surprisingly similar. A similar proportion of Los Angeles seniors and all seniors nationally expect to enter a four-year college. However, twice as many Los Angeles seniors expect to enter a community college as do high school seniors nationally.⁷

Table 8

High School Seniors' Expectations of Entering College
and Receiving Financial Aid for High, Middle, and
Low Income Schools, the Los Angeles District, and Nationally*

	N	Percent Expecting to Attend:			Percent of Expected Students Expecting to Receive Financial Aid
		4-year college	2-year college	vocational school	
High Income Schools	3,179	42%	31%	3%	9%
Middle Income Schools	3,698	22	36	6	20
Low Income Schools	3,001	19	39	9	25
All Sampled Schools	9,878	28	35	6	18
All Los Angeles Schools	33,163	27	36	5	18
Nationally	3.4 mil	25	17	5	**

* Los Angeles data are for seniors graduating in June, 1973 and were collected two weeks prior to graduation. National data were collected in October, 1973 from seniors graduating in June, 1974.

** National data unavailable.

Eligibility Information

To precisely examine the pools of eligible graduates, the eligibility of each graduate to enroll at the University of California and the State University and Colleges was determined by the institutions themselves.

To be eligible for admission to UC a high school graduate must have a grade point average of 3.0 in a specific range of courses. If the graduate's GPA is between 3.0 and 3.1, test scores are also evaluated to determine eligibility.⁸ (UC eligibility is reported as (1) eligible for admission, (2) ineligible because the graduate did not complete the specified range of courses. (3) ineligible because the required GPA was not obtained for the required range of courses, (4) ineligible due to both course and GPA deficiencies, or (5) eligibility cannot be determined because

necessary test scores are unavailable.)

Table 9 displays the percentage of graduates eligible to enter UC for high, middle, and low income high schools. Three times as many graduates of high income schools are eligible to enter UC as are graduates of low income high schools. Ten percent of graduates of low income high schools are ineligible primarily due to course deficiencies, not inadequate academic performance. If admission requirements were related to overall academic achievement rather than in a specific range of courses, the eligibility pool of low income students would increase significantly.

Table 9

Eligibility to Enter the
University of California by
High, Middle, and Low Income Schools

	N	eligible	subject deficiencies	gpa deficiencies	ineligible subject/gpa deficiencies	total ineligible	test scores needed to determine eligibility	
High Income Schools	508	29%	5%	10%	52%	(67%)	4%	100%
Middle Income Schools	600	22	8	3	66	(77)	1	100%
Low Income Schools	484	9	10	2	78	(90)	1	100%
Total	1592	20	8	5	65	(78)	2	100%

Twenty percent of the sampled graduates are eligible to enter UC. This finding is surprising in that UC admission requirements build upon the policy that only the top 12½ percent of all high school graduates are eligible. This finding is troubling since UC might respond by tightening admission standards, resulting in reduced access to low income students, of whom only nine percent are currently eligible.

The eligibility rate for white graduates is 25 percent (Table 10), approximately three times as high as that for Spanish surname and black graduates whose eligibility rates are nine and seven percent respectively. Just over one-half of all Asian Americans are UC eligible, twice the eligibility rate for Caucasians.

Table 10

Eligibility to Enter the University
of California by Ethnic Group

	N	eligible	subject deficiencies	ineligible gpa deficiencies	subject/gpa deficiencies	total ineligible	test scores needed to determine eligibility	
black	347	7%	7%	7%	84%	(93%)	1%	100%
Spanish surname	267	9	10	3	77	(90)	1	100%
American Indian	7	14	0	0	86	(86)	0	100%
Asian American	130	51	6	7	35	(48)	1	100%
white	729	25	8	7	57	(72)	3	100%
others	31	26	13	3	55	(71)	3	100%
decline to state	81	21	9	4	64	(77)	2	100%
Total	1592	20	8	5	65	(78)	2	100

The surprisingly high UC eligibility rate for the total sample (20 percent) is, in small part, the result of an overrepresentation of Asian Americans in the sample. Excluding Asian Americans from the total sample, the UC eligibility rate for sampled graduates from all high schools is 18 percent.

UC eligibility rates are similar for male and female graduates, 21 percent and 19 percent, respectively (see Table 11). However, almost three times as many females are ineligible primarily due to course deficiencies. It has been argued that underrepresentation of women in the math-physical science fields is the result of women choosing not to pursue mathematics in high school.⁹ The fact that many more women than men are performing well but deficient in the required course pattern (which stresses mathematics and sciences) tends to confirm this argument.

Table 11

Eligibility to Enter the
University of California by Sex

	N	eligible	subject deficiencies	ineligible gpa deficiencies	subject/gpa deficiencies	total ineligible	test scores needed to determine eligibility	
male	736	21%	4%	6%	66%	(76%)	2%	100%
female	853	19	11	4	64	(79)	2	100%

Initial eligibility to enter the State University and Colleges is determined on the basis of overall grade point average of all courses completed (excepting physical education and military science).¹⁰ Eligibility is further decided by evaluating both GPA and test scores. CSUC eligibility is reported as eligible, ineligible, or test scores needed to determine eligibility. Whereas eligibility to enter CSUC for many sampled graduates could not be determined because required tests were not taken, the GPA is reported for each such graduate.

Table 12 reports CSUC eligibility rates for high, middle and low income high schools. As with UC eligibility rates, for every three graduates of high income schools eligible to enter the State University and Colleges only one graduate of a low income school is eligible. Twice as many graduates of low income schools as graduates from high income schools are possibly eligible but did not take the tests necessary to determine eligibility. Twenty three percent of such graduates from low income high schools possess moderately high levels of academic achievement, GPAs between 2.8 and 3.2.

Table 12

Eligibility to Enter the State University and Colleges by High, Middle, and Low Income Schools

	N	eligible	ineligible	test scores needed to determine eligibility		gpa of graduates who did not take tests				
						N	2.00-2.39	2.40-2.79	2.80-3.20	
High Income Schools	508	52%	20%	27%	100%	140	41%	37%	22%	100%
Middle Income Schools	600	38	22	40	100%	240	27	42	31	100%
Low Income Schools	481	1	33	49	100%	236	43	34	23	100%
Total	1589	36	25	39	100%	616	36	38	26	100%

CSUC entrance requirements are designed to define the top one-third of all high school graduates as eligible for admission. Of the total sample 36 percent are eligible for admission. Table 13 indicates the high eligibility rate (70 percent) for Asian Americans. Excluding Asian Americans from the sample, the overall eligibility rate decreases to 33 percent.

Substantially lower CSUC eligibility rates for Spanish surname and black high school graduates are also reported in Table 13: One-half of all white graduates are CSUC eligible, compared to only 18 percent of Spanish surname and 15 percent of black graduates.

Table 13

Eligibility to Enter the State
University and Colleges by Ethnic Group

	N	eligible	ineligible	test scores needed to determine eligibility	
black	347	15%	39%	46%	100%
Spanish surname	264	18	31	51	100%
American Indian	7	14	57	29	100%
Asian American	130	70	18	12	100%
white	729	47	18	35	100%
others	31	42	23	35	100%
decline to state	81	34	17	48	100%
Total	1589	36	25	39	100%

The ethnic characteristics of all sampled graduates eligible for admission to UC and CSUC, actual UC and CSUC enrollments, and the 12th grade class statewide are compared in Table 14. Substantial underrepresentation of black and especially Spanish surname students persists at UC. Serious underrepresentation of Spanish surname students also continues at CSUC.

Table 14

Comparison of UC and CSUC Eligible Graduates, Actual
Enrollments, and the Twelfth Grade Class Statewide

	University of California		State University and Colleges		12th grade class Fall, 1973
	LA sample: eligible graduates	Actual enrollment*	LA sample: eligible graduates	Actual Enrollment*	
black	8%	5%	9%	8%	8%
Spanish surname	8	4	9	8	13
American Indian	0.3	1	0.2	2	0.4
Asian American	21	10	17	5	3
white	60	80**	63	74	76**
others	3		2	2	
	100%	100%	100%	100%	100%

* Actual enrollment figures are for the Fall, 1974 freshmen class for both UC and CSUC.

** The University of California and the Department of Education combine "whites" and "others" when reporting ethnic figures.

Note: All data reported were calculated after excluding "decline to state" responses, except for Fall, 1973 12th grade class data which were collected from classroom teachers. The impact of excluding "decline to state" responses upon the reliability of the data is presently unknown. However, when "decline to state" responses, for example, are included in the CSUC data the representation of both blacks and Spanish surname falls from eight percent to approximately five percent. The highest percentage of graduates from the Los Angeles sample declining to state ethnic classification were from high income schools and, therefore, most likely Caucasian.

Actual Postsecondary Choices

After examining the eligibility of the sampled population, actual postsecondary choices were studied. These data were collected one year after graduation -- in May, 1974. Postsecondary activities of graduates from high, middle, and low income high schools are reported in Table 15.

Table 15

Postsecondary Activities of Graduates
by High, Middle, and Low Income Schools

	other ¹ N 4-yr college	UC	CSUC	private ² college	total 4-yr college	comm coll	occupational ³ Program	employed	emply/part ⁴ time student	military	unemployd	other ⁵
	2 %	18%	17%	10%	(47%)	31%	1%	13%	3%	1%	2%	100%
High Income schools	508											
Middle Income schools	600	1	7	12	7	33	4	23	5	1	4	3 100%
Low Income schools	484	0.4	4	8	8	25	7	25	3	6	7	5 100%
Total	1592	1	10	12	8	30	4	21	4	3	4	3 100%

1. Includes out-of-state and unidentified four-year colleges.
2. Includes private/independent four-year colleges and universities.
3. Includes occupational centers and proprietary schools.
4. Includes employed, part-time students.
5. Includes "homemaker", "traveling", or "doing nothing in particular".

Four times as many graduates of high income schools actually enter the University of California as graduates from low income schools. Seventeen percent of high income graduates choose to enter the State University and Colleges, compared to only eight percent of graduates from low income schools. While just under one-half of graduates from high income schools enter a four-year college, only 21 percent of low income graduates do so. These seems to be surprising equality of opportunity for graduates choosing to enter a private college or university: Private college entrance rates for graduates from high, middle, and low income schools are roughly equal at ten, seven, and eight percent. Entrance rates to community colleges are also approximately equal for graduates of all three income groups.

Given the enormous differences in tuition levels, from price-free community colleges to expensive private universities, these findings indicate the positive impact of student financial aid programs in equalizing access to high tuition institutions. However, the low entrance rates for low income students to UC and CSUC indicate that financial assistance alone will not overcome the underrepresentation of low income and minority high school graduates.

The data reported in Table 15 also indicate that low income graduates enter the work force at twice the rate of graduates of high income schools, one year after graduation. Many more low income graduates (20 percent) enter the military, enter an occupational center or proprietary school, or are unemployed than high income graduates (4 percent).

Postsecondary choices of the graduates by ethnic classification are reported in Table 16. Only two percent of Spanish surname and four percent of black graduates enter the University of California, while 14 percent of white graduates enter UC. Spanish surname graduates also have the lowest entrance rate to CSUC -- six percent -- compared to nine percent for blacks, 14 percent for whites, and 26 percent for Asian Americans. The entrance rates to private colleges and universities for blacks, Spanish surname, and whites are remarkably similar at eight, seven, and eight percent, respectively.

Table 16

Postsecondary Activities of
Graduates by Ethnic Group

	N	other 4-yr college	UC	CSUC	private college	total 4-yr college	comm coll	occupational program	employed	other	
black	347	1%	4%	9%	8%	(22%)	28%	9%	25%	17%	100%
Spanish surname	267	1	2	6	7	(16)	27	5	35	16	100%
American Indian	7	0	0	0	0	(0)	29	0	29	43	100%
Asian American	130	1	15	26	18	(60)	26	0	11	2	100%
white	729	2	14	14	8	(38)	33	2	23	5	100%
others	31	0	6	26	0	(32)	35	3	10	19	100%
decline to state	81	0	11	9	9	(29)	32	4	27	9	100%

Academic achievement, as determined by traditional means, has a strong correlation with and affect on a graduate's postsecondary choices. Table 17 reports graduates' postsecondary activities by income level for students who obtained a GPA above or below 3.0. Graduates with at least a "B" average (3.0 GPA) are more likely to enter a four-year college. However, graduates from high income schools with at least a 3.0 GPA enter four-year colleges at a substantially higher rate (80 percent) than graduates of equal academic achievement but from low income schools (60 percent). Furthermore, the four-year college entrance rate for graduates with less than a "B" average (28 percent) is almost three times higher for high income than for low income graduates (10 percent).

Table 17

Postsecondary Activities of Graduates
with at Least and Less than a B Average/3.0 GPA
by High, Middle, and Low Income Schools

	N	four-year college	community college	employed or other	
High Income Schools					
3.0 GPA or more	128	80%	11%	9%	100%
less than 3.0 GPA	172	28	46	26	100%
Middle Income Schools					
3.0 GPA or more	123	56	24	20	100%
less than 3.0 GPA	177	10	41	49	100%
Low Income Schools					
3.0 GPA or more	63	60	13	27	100%
less than 3.0 GPA	237	10	30	60	100%
Total					
3.0 GPA or more	314	67	16	17	100%
less than 3.0 GPA	586	15	38	47	100%

The relationship between academic achievement and postsecondary decisions was also examined in terms of eligibility to enter UC and CSUC. Table 18 indicates graduates' postsecondary activities by UC eligibility status for high and low income and all high schools. The UC entrance rate for eligible high income graduates (51 percent) is twice the entrance rate of eligible low income graduates (24 percent). A significantly greater proportion of the latter group appear to be entering the work force directly from high school than high income, UC eligible graduates. However, the primary factor underlying the flow of eligible low income graduates away from UC appears to be the attraction of private colleges and universities. Fifty-seven percent of low income, UC eligible graduates enter a private college, while this rate was only 18 percent for high income UC eligible graduates.

Data reported in Table 18 also reveal the significant number of ineligible graduates who actually enter UC through special admissions programs.

Table 18

Postsecondary Activities of Graduates
from High and Low Income and All Schools
by UC Eligibility Status

	N	other 4-yr college	UC	CSUC	private college	comm coll	occupational program	employed	other
eligible	148	2%	51%	16%	18%	7%	0%	4%	1%
high	42	0	24	10	57	2	0	7	0
low	323	1	38	19	24	8	0	8	1
all									
ineligible:									
course									
deficiencies	26	8	8	23	19	12	0	19	12
high	50	0	8	12	6	20	8	34	12
low	124	2	5	13	8	25	6	32	9
all									
ineligible:									
gpa									
deficiencies	51	2	6	41	6	39	0	4	2
high	11	0	0	9	9	36	9	27	9
low	82	1	4	33	9	40	1	7	4
all									
ineligible:									
course/gpa									
deficiencies	263	1	2	13	5	45	2	25	7
high	375	1	1	8	2	29	8	30	22
low	1031	1	1	9	3	37	5	30	14
all									
total									
ineligible:	340	1	3	18	6	42	2	22	7
high	436	1	2	8	3	28	8	30	21
low	1237	1	2	11	4	36	5	29	13
all									
test scores									
unavailable	20	5	40	15	20	10	0	5	5
high	6	0	0	0	67	17	17	0	0
low	32	6	31	12	25	16	3	3	3
all									

Ninety percent of low income, UC eligible graduates enter a four-year college. Yet over 40 percent of the low income graduates ineligible to attend UC, due only to course or GPA deficiencies for many, actually enter a two or four-year college. Marginal increases in information about UC entrance requirements will increase the number of eligible low income graduates. Further, given the substantial number of low income graduates who enter community colleges but are ineligible to enter UC (28 percent), many should perform at adequate levels to become eligible to later transfer to the University.

The postsecondary activities of graduates eligible to enter the State University and Colleges are reported in Table 19. Similar to the patterns discussed above, the CSUC entrance rate for CSUC-eligible high income graduates (28 percent) is nearly twice the rate for eligible low income graduates (17 percent).

The number of low income CSUC eligible graduates would increase substantially if the graduates simply completed the required tests or if this requirement was modified. Only three percent of low income graduates, whose eligibility could not be determined because of the unavailability of necessary test scores, actually enter CSUC. However, 23 percent of these graduates displayed strong academic potential, achieving a "B" average (2.8 - 3.2 GPA) in high school.

Table 19

Postsecondary Activities of Graduates for
High and Low Income and All Schools by
CSUC Eligibility Status

	N	other 4-yr college	UC	CSUC	private college	comm coll	occupational program	employed	other	
Eligible										
High	265	3%	34%	28%	16%	13%	0%	5%	2%	100%
Low	83	0	18	17	39	10	2	12	2	100%
All	577	2	25	24	19	16	1	11	2	100%
Ineligible										
High	104	1	2	12	7	53	2	20	3	100%
Low	161	1	2	13	2	30	6	27	19	100%
All	396	1	2	13	4	41	5	23	12	100%
Test Scores Needed										
High	139	0	1	1	1	47	3	34	13	100%
Low	237	0	0	3	1	28	9	35	23	100%
All	616	0	0	2	1	36	7	38	16	100%

Finally, the choices of graduates who are ineligible to enter UC yet eligible for admission to CSUC were examined (Table 20). These data reveal that 21 percent of the graduates, eligible for CSUC but not for UC, chose not to enter college. Community colleges and private colleges and universities are also attractive to this group of graduates.

Over 40 percent of the graduates ineligible for both UC and CSUC enter community colleges, providing a potentially significant number of transfer students eligible for UC and CSUC.

Table 20

Postsecondary Activities of Graduates
by Combinations of UC and CSUC Eligibility Status

		other 4-yr college	UC	CSUC	private college	comm coll	occupational program	employed	other	
UC and CSUC eligible	315	2%	39%	19%	24%	7%	0%	9%	1%	100%
UC ineligible/ CSUC eligible	236	3	6	30	12	29	2	15	4	100%
UC and CSUC ineligible	392	1	2	13	4	41	5	23	12	100%

CONCLUSIONS AND RECOMMENDATIONS

College opportunities continue to be inequitably distributed between high school graduates of high and low income backgrounds. Access for the poor, who most often are ethnic minorities, is limited. After an initial examination of high school graduates' postsecondary choices, specific factors affecting actual equality of access can be identified. Institutional responses are suggested for each factor or problem area.

- Problem 1: Inequitable Eligibility Rates. Graduates of high income schools are three times as likely to be eligible for entrance to the University of California as are low income graduates. This 3:1 ratio also applies to CSUC eligibility rates of high and low income graduates. Given the high college entrance rates of UC eligible and CSUC eligible low income graduates, the primary barrier for most low income graduates is their ineligibility for college admission. For every 100 students entering high income high schools, 26 are eligible to enter the University of California and 46 are eligible to attend the State University and Colleges upon leaving high school. Yet for every 100 students who enter high schools in low income areas 39 drop out, only six are eligible to enter UC, and 12 are CSUC eligible.

Institutional Response: Efforts must be undertaken to improve instructional programs in low income high schools to increase student achievement levels. Educational Opportunity Programs (EOP) and student assistance programs, generally, should focus on reaching high potential, needy students. Data indicate that these programs have provided access to low income high school graduates who are eligible for admission. Further progress is dependent upon the ability of high schools to develop the learning potential of low income students and thus enlarge the eligibility pools.

- Problem 2: Eligible Graduates Not Entering Four-year College. A significant number of UC eligible and CSUC eligible graduates are not entering college. Seven percent of UC eligible, low income graduates choose not to enter college. Twenty percent fewer low income graduates with at least a 3.0 GPA, than high income graduates, enter a four-year college.

Institutional Response: High school counselors and teachers as well as student affirmative action, EOP, and other outreach efforts should identify and provide more adequate information about postsecondary

opportunities to these high achieving, low income graduates. The financial needs of these graduates should be addressed on a priority basis in expanding or reallocating student aid dollars.

- Problem 3: Limited Access of Moderately High Achieving Graduates due to Inflexible Admission Requirements.

A significant number of low income graduates are ineligible for admission to UC and/or CSUC simply because the required entrance examinations were not taken. Many of these graduates perform at moderately high levels (2.8 to 3.2 GPA) in high school, but do not enter UC nor CSUC. Many low income graduates are ineligible to enter UC primarily because required courses are not completed, yet achieved at high levels overall. Modification of UC eligibility requirements could as much as double the eligibility pool of low income graduates, without lowering standards.

Institutional Response: Admission policies at the University of California and the State University and Colleges should become more flexible in assessing the overall potential of low income graduates. Special admissions policies have been partially successful in providing such flexibility. However, the data (Tables 17-19) reveal a significant number of moderately high achieving, low income graduates who are denied access due to inflexible policies. The expanded use of special admissions in considering the potential of low income graduates would largely alleviate such inflexibility. Assembly Concurrent Resolution 150, approved by the Legislature in 1974, encourages UC and CSUC to expand the use of nontraditional admission criteria.

The data reported here also relate to immediate policy decisions:

- While little precise data exist regarding persistence of low income students through community colleges, it is likely that many who were ineligible upon graduating from high school, become eligible to transfer to UC or CSUC. Outreach efforts, should focus in part on providing access to high potential, low income community college students.¹¹
- The fact that many high achieving, low income graduates are denied access to college justifies the continued expansion of the College Opportunity Grant program which serves this clientele. In 1973, the COG program provided assistance to only one of every three eligible applicants with demonstrated financial need.

- Given (1) the finding that increased informational and outreach services are desirable in reaching an increasing number of eligible and high achieving, ineligible low income graduates and (2) the increasing availability of financial aid due to the federal Basic Educational Opportunity Grant program, increased expenditures in EOP outreach and supportive services is of greater priority than increasing the financial assistance component of EOP programs.
- The documented willingness of independent colleges and universities to provide access to low income graduates increases the value of maintaining the financial health of this segment of postsecondary education.
- Legislative responses to Serrano should, in part, focus on improving achievement levels of students in high schools serving low income areas (which may not be located in low-wealth school districts). Efforts should be undertaken by the Department of Education and local districts to determine whether current programs for educationally disadvantaged youth (EDY) are adequate for improving instructional programs in low income high schools

This study reveals how little we know about what postsecondary choices high school graduates make and why, in spite of the fact that society expends millions of dollars annually to provide various postsecondary educational opportunities. The previously mentioned statewide study of high school graduates by the Postsecondary Education Commission will yield statewide data similar to that collected here. Beyond this, information should be collected on specific factors affecting postsecondary choices, including the effect of student aid programs and tuition levels. Future program evaluation efforts should focus on asking students what factors affect their choices after high school.

Finally, information available to students and to postsecondary education policymakers is a precondition to assuring that postsecondary education connects responsively with the needs of Californians. Hopefully, this study shows the way to further meet informational needs and indicates actions now warranted, to actualize the educational goals of California.

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Bruce Fuller
Committee Consultant

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FOOTNOTES

1. Freeman, Richard, and Hollomon, J. Herbert. "The Declining Value of College Going." Change, September, 1975, 26-27.
2. Bureau of the Census, U.S. Department of Commerce. "Social and Economic Characteristics of Students (Series P-20)." Current Population Reports, Number 272, November, 1974, 43-45.
3. University of California. "A Report to the President of the University of California from the Student Affirmative Action Task Groups." Office of the President, July, 1975, 26.
4. Extensive national research on the work/school choices of high school graduates was conducted in the 1960s. The most comprehensive and useful examination was a project entitled School to College: Opportunities for Postsecondary Education (SCOPE) and directed by Dale Tillery at Berkeley. The SCOPE study followed the school and work patterns of 34,000 high school seniors from four states who graduated in 1966. Tillery's work examined several factors related to the graduates' postsecondary choices: academic ability, family and home milieu, parental expectations, self-evaluation, values, perceptions of school, information-seeking activities, occupational preferences, and intellectual predisposition. The many findings of the SCOPE project are reported in: Tillery, Dale. Distribution and Differentiation of Youth: A Study of Transition from School to College. Dallinger Publishing Co., 1973.

Earlier research was also done at Berkeley based upon a national sample of the high school senior class of 1959. The findings of this work are presented in: Trent, James W., and Medsker, Leland L. Beyond High School. Jossey-Bass Inc., Publishers, 1968. Project TALENT is an on-going effort to examine the careers of a large national sample of high school seniors who graduated in 1960. Numerous publications are available from the American Institutes of Research, Palo Alto. A useful summary of SCOPE and Project TALENT findings relevant to California was written by Lewis Perl and Martin Katzman and published in 1968 by the Office of the Vice-President, Planning and Analysis, University of California.

These efforts yielded evidence in the 1960s helpful to successful advocates of publicly-funded student financial aid and educational opportunity programs. Few similar data have since been collected that are useful in refining public policies and programs which seek to equalize college opportunities. There appears to be a recent renewal of interest in learning about what choices high school graduates make and why. The National Center for Education Statistics surveyed 18,000 high school seniors in 1972 as the beginning step of a national longitudinal study. The results of the initial survey appear in: Feters, William. National Longitudinal

Study of the High School Class of 1972: Student Questionnaire and Test Results. National Center for Education Statistics, Report 75-208, 1975. Also a brief study was recently completed in Florida: Carroll, Stephen J., and Relles, Daniel A. The Transition from High School to College: A Study of Freshmen Enrollments in Florida. Rand Corporation, Santa Monica, 1975.

5. The sample equals five percent of the district's graduating class. The district contains 49 high schools. Family income figures are determined from 1970 census data. The district's analyses and findings, in part reported in this report, were conducted utilizing a representative sample of 900 graduates.
6. Analysis by the Los Angeles District indicates the sample of 1,592 is also representative of the entire graduating class regarding reading and mathematics test scores. Fascinating analyses by the Los Angeles District are contained in: "Plans of the 1973 Graduates," Report #333; "Follow-up Study of Los Angeles City 1973 High School Graduates," Report #346; "Composite Profile of a Los Angeles City 1973 High School Graduate," Report #349. Research and Evaluation Branch, Los Angeles City Unified School District, 1974-1975.
7. The previously mentioned National Center for Educational Statistics study contains interesting national data on what information sources affect a high school student's choice to attend, or not attend, college.
8. A 3.0 GPA is required in the following courses: one year of U.S. History, three years of English, two years of mathematics, one year of a laboratory science, two years of a foreign language, and one or two years of an additional advanced mathematics, foreign language, or science course. All UC applicants must also take four college entrance tests. However, test scores are only used to determine admission if the applicant's GPA is between 3.0 and 3.1.
9. Sells, Lucy W. "Preliminary Report on the Status of Graduate Women: University of California, Berkeley." Graduate Assembly, Committee on the Status of Women, 1973.
10. If the applicant's GPA is below 2.0, he/she is ineligible regardless of test scores. If the applicant's GPA is above 3.2, he/she is eligible for admission regardless of test scores. Thus, test scores are a factor in determining eligibility only when the applicant's GPA is between 2.0 and 3.2.
11. The contention that many low income high school graduates are eligible to transfer to a four-year college after two years in a community college is supported by the continuing research of Dorothy Knoell. See: Knoell, Dorothy. "Through the Open Door: A Study of Persistence and Performance in California's

Community Colleges." California Coordinating Council for Higher Education, 1974. The final report regarding persistence of community college students is being prepared for the California Postsecondary Education Commission and is due in January, 1976.